

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re patent application of:	Group Art Unit: To Be Assigned
Uwe SONNEWALD et al.	Examiner: To Be Assigned
U.S. Application No.: To Be Assigned	U.S. Filing Date: November 29, 2004
PCT Application No.: PCT/EP03/007027	Int'l Filing Date: July 2, 2003
Title: <b>METHODS FOR OBTAINING PATHOGEN RESISTANCE IN PLANTS</b>	

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**INFORMATION DISCLOSURE STATEMENT**

In accordance with 37 C.F.R. §§ 1.97 and 1.98, and in compliance with the duty of disclosure set forth in 37 C.F.R. § 1.56, applicants submit for consideration the documents listed on the attached Form PTO/SB/08a/b. Pursuant to the USPTO notice dated July 11, 2003, waiving the requirement under 37 C.F.R. § 1.98(a)(2)(i) to provide copies of U.S. Patents and U.S. Published Applications, copies of these references are not submitted. However, applicants submit herewith copies of all foreign references and non-patent literature. The Examiner is requested to make these documents of record.

Attached documents numbered 1, 5, 6, 17 and 32 on the Form PTO/SB/08a/b were cited in an International Search Report, mail dated November 13, 2003, of the corresponding International Application No. PCT/EP03/07027, a copy of which is enclosed.  
va-85737

The information contained in this Information Disclosure Statement under 37 C.F.R. § 1.97 and § 1.98 is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

Consideration of the foregoing plus the prompt return of a copy of the enclosed Form PTO/SB/08a/b with the Examiner's initials in the left column in accordance with MPEP 609 are respectfully requested.

This Information Disclosure Statement is being submitted with the filing of this application; accordingly, no fee is required. However, in the event any fee is deemed necessary, the Commissioner is authorized to charge the undersigned's Deposit Account No. 03-1952.

Respectfully submitted,

MORRISON & FOERSTER LLP

Dated: November 29, 2004

By: 

James Remenick  
Registration No. 36,902

**Customer Number 25227**  
Morrison & Foerster LLP  
1650 Tysons Boulevard, Suite 300  
McLean, Virginia 22102  
(703) 760-7700 (telephone)  
(703) 760-7777 (facsimile)

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	To Be Assigned
				Filing Date	November 29, 2004
				First Named Inventor	Uwe SONNEWALD et al.
				Art Unit	To Be Assigned
				Examiner Name	To Be Assigned
Sheet	1	of	2	Attorney Docket Number	53262-20097.00

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	1.	5,786,140	07/28/1998	Mattes et al.	
	2.	5,985,622	11/16/1999	Mattes et al.	
	3.	6,395,963 B1	05/28/2002	Ohl et al.	
	4.	2003/0087416 A1	05/8/2003	Mattes et al.	
	5.	2003/0159181 A1	08/21/2003	Bornke et al.	
	6.	2004/0064851 A1	04/01/2004	Kunz et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
	7.	WO 94/10320 ✓	05/11/1994	Mogen International N.V.		
	8.	WO 97/46692 ✓	12/11/1997	Mogen International N.V.		
	9.	WO 98/04586 ✓	02/05/1998	John Innes Centre Innovations Limited		
	10.	WO 99/47552 ✓	09/23/1999	Novartis AG		
	11.	WO 00/01722 ✓	01/13/2000	Pioneer Hi-Bred International, Inc.		
	12.	WO 00/01832 ✓	01/13/2000	Plant Bioscience Limited		
	13.	WO 03/033651 A2 ✓	04/24/2003	Pioneer Hi-Bred International, Inc.		
	14.	JP 2001/508661 ✓	01/20/1997	Abstract only		
	15.	DE 44 14 185 ✓	01/19/1994	Abstract only		
	16.	WO 01/59136 A ✓	02/14/2000	Abstract only		

\*EXAMINER: Initial if information considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author ( in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	17. ✓	Börnke, Frederik, et al., "Potato Tubers as Bioreactors for Palatinose Production," <i>Journal of Biotechnology</i> , <b>96</b> :119-124 (2002).	
	18. ✓	Börnke, Frederik, et al., "Cloning and Characterization of the Gene Cluster for Palatinose Metabolism from the Phytopathogenic Bacterium <i>Erwinia rhapontici</i> ," <i>Journal of Bacteriology</i> , <b>183</b> (8):2425-2430 (2001).	
	19. ✓	Börnke, Frederik, et al., "High-Level Production of the Non-Cariogenic Sucrose Isomer Palatinose in Transgenic Tobacco Plants Strongly Impairs Development," <i>Planta</i> , <b>214</b> :356-364 (2002).	
	20. ✓	Brogie, Karen, et al., "Transgenic Plants with Enhanced Resistance to the Fungal Pathogen <i>Rhizoctonia solani</i> ," <i>Science</i> , <b>254</b> :1194-1197 (1991).	
Examiner Signature			Date Considered

VA- 85709

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	To Be Assigned
				Filing Date	November 29, 2004
				First Named Inventor	Uwe SONNEWALD et al.
				Art Unit	To Be Assigned
				Examiner Name	To Be Assigned
Sheet	2	of	2	Attorney Docket Number	53262-20097.00

21.	✓	Büschges, Rainer, et al., "The Barley <i>Mlo</i> Gene: A Novel Control Element of Plant Pathogen Resistance," <i>Cell</i> , <b>88</b> :695-705 (1997).	
22.	✓	Custers, Jerome H.H.V., et al., "T-DNA Tagging of a Pathogen Inducible Promoter in <i>Arabidopsis thaliana</i> ," <i>Molecular Plant Pathology</i> , <b>3</b> (4):239-249 (2002).	
23.	✓	Escobar, Carolina, et al., "Isolation of the <i>LEMMI9</i> Gene and Promoter Analysis During a Compatible Plant-Nematode Interaction," <i>Molecular Plant-Microbe Interactions</i> , <b>12</b> (5):440-449 (1999).	
24.	✓	Fenoll, Carmen, et al., "The Molecular Basis of Nematode Endoparasitism in Plants," <i>Physiol. Mol. Biol. Plants</i> , <b>4</b> :9-18 (1998).	
25.	✓	Friedrich, Leslie, et al., "A Benzothiadiazole Derivative Induces Systemic Acquired Resistance in Tobacco," <i>The Plant Journal</i> , <b>10</b> (1):61-70 (1996).	
26.	✓	Jorgensen, J. Helms, "Spectrum of Resistance Conferred by <i>ML-O</i> Powdery Mildew Resistance Genes in Barley," <i>Euphytica</i> , <b>26</b> :55-62 (1977).	
27.	✓	Karimi, M., et al., "Activation of a Pollenin Promoter Upon Nematode Infection," <i>Journal of Nematology</i> , <b>34</b> (2):75-79 (2002).	
28.	✓	Keil, Michael, et al., "Primary Structure of a Proteinase Inhibitor II Gene from Potato ( <i>Solanum tuberosum</i> )," <i>Nucleic Acids Research</i> , <b>14</b> (14):5641-5650 (1986).	
29.	✓	Lawton, Kay A., et al., "Benzothiadiazole Induces Disease Resistance in <i>Arabidopsis</i> by Activation of the Systemic Acquired Resistance Signal Transduction Pathway," <i>The Plant Journal</i> , <b>10</b> (1):71-82 (1996).	
30.	✓	Lyngkjaer, M.F., et al., "A Japanese Powdery Mildew Isolate with Exceptionally Large Infection Efficiency on <i>Mlo</i> -Resistant Barley," <i>Plant Pathology</i> , <b>44</b> :786-790 (1995).	
31.	✓	Opperman, Charles H., et al., "Root-Knot Nematode-Directed Expression of a Plant Root-Specific Gene," <i>Science</i> , <b>263</b> :221-223 (1994).	
32.	✓	Rocha-Sosa, Mario, et al., "Both Developmental and Metabolic Signals Activate the Promoter of a Class I Patatin Gene," <i>The EMBO Journal</i> , <b>8</b> (1):23-29 (1989).	
33.	✓	Sonnewald, Uwe, et al., "Transgenic Tobacco Plants Expressing Yeast-Derived Invertase in Either the Cytosol, Vacuole or Apoplast: A Powerful Tool for Studying Sucrose Metabolism and Sink/Source Interactions," <i>The Plant Journal</i> , <b>1</b> (1):95-106 (1991).	
34.	✓	Sijmons, P.C., et al., "Parasitic Strategies of Root Nematodes and Associated Host Cell Responses," <i>Ann. Rev. Phytopathol.</i> , <b>32</b> :235-259 (1994).	
35.	✓	Schulze-Lefert, Paul, et al., "Closing the Ranks to Attack by Powdery Mildew," <i>Trends in Plant Science</i> , <b>5</b> (8):343-348 (2000).	
36.	✓	Uknes, Scott, et al., "Acquired Resistance in <i>Arabidopsis</i> ," <i>The Plant Cell</i> , <b>4</b> :645-656 (1992).	
37.	✓	Vaeck, Mark, et al., "Transgenic Plants Protected from Insect Attack," <i>Nature</i> , <b>328</b> :33-37 (1987).	
38.	✓	Ward, Eric R., et al., "Coordinate Gene Activity in Response to Agents that Induce Systemic Acquired Resistance," <i>The Plant Cell</i> , <b>3</b> :1085-1094 (1991).	
39.	✓	Zhang, Daohai, et al., "Isomaltulose Synthase from <i>Klebsiella</i> sp. Strain LX3: Gene Cloning and Characterization and Engineering of Thermostability," <i>Applied and Environmental Microbiology</i> , <b>68</b> (6):2676-2682 (2002).	
40.	✓	GeneBank Accession No. A79355.	
41.	✓	GeneBank Accession No. A91914.	
42.	✓	GeneBank Accession No. AF279281.	
43.	✓	GeneBank Accession No. AY040843.	
44.	✓	GeneBank Accession No. BD056958.	
45.	✓	GeneBank Accession No. X04118.	

\*EXAMINER: Initial if information considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

VA- 85709